8-20-2020

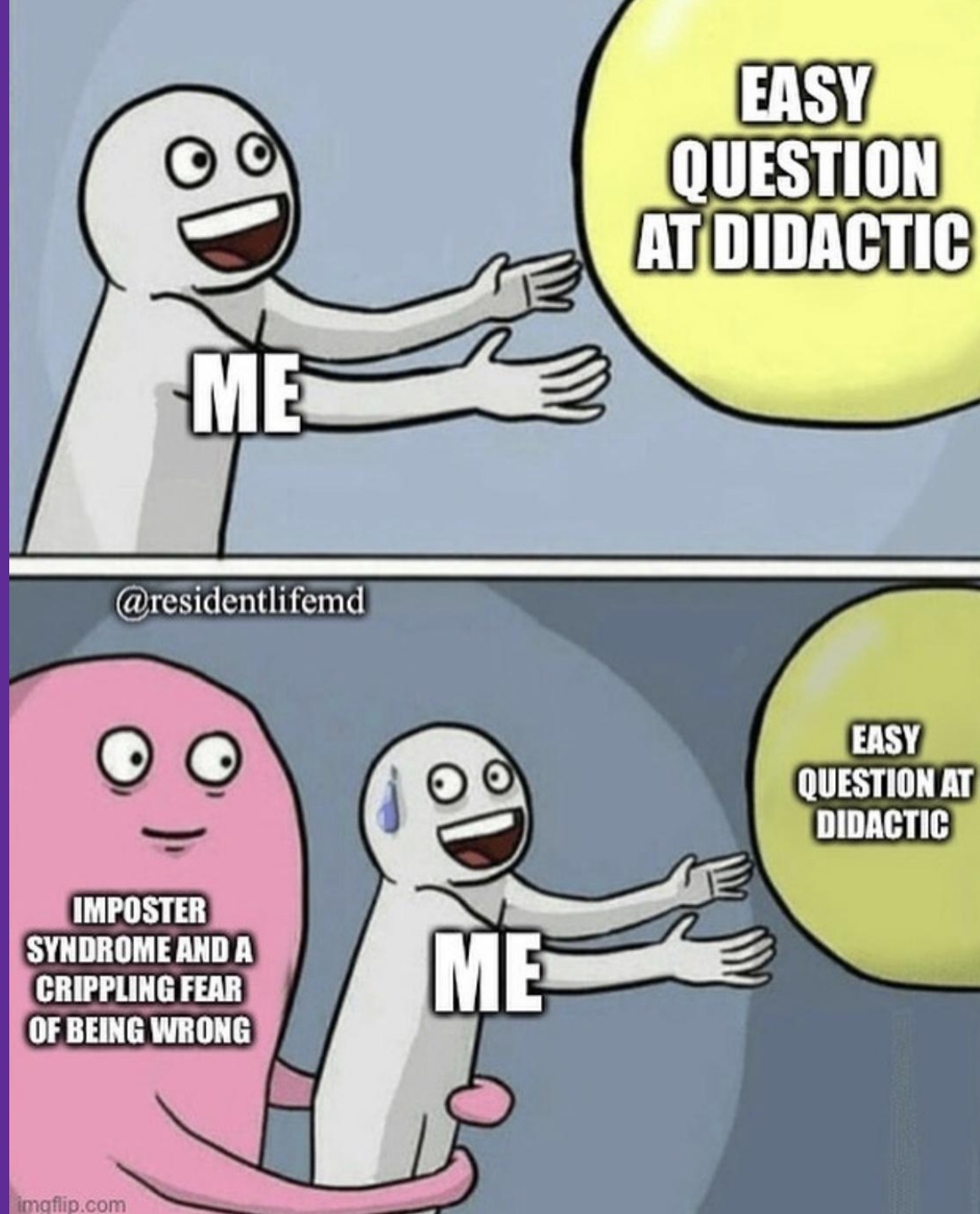
Evaluation and Management of Common Anorectal Complaints

Krys Foster, MD, MPH
Thomas Jefferson University

Evaluation and Management of Common Anorectal Complaints

Krys E. Foster, MD, MPH, FAAFP
Associate Program Director
Department of Family & Community Medicine
Thomas Jefferson University Hospital
August 2020

Let's try to make this interactive!



Introduction

- The prevalence of benign anorectal conditions in primary care settings is high
- It is important for PCPs to be able to recognize and confidently assess anorectal symptoms in order to treat or appropriately refer
- Differential for anorectal pain or lesions is broad; clinicians must maintain a high index of suspicion for inflammatory or malignant conditions

Objectives

- Review the anatomy of the rectum and anus
- Learn skills to perform an appropriate H&P for anorectal complaints
- Appreciate key diagnostic features to common anorectal diagnoses
- Recognize risk factors and red flag signs/symptoms that prompt further evaluation and possible referral

Disclosures/Disclaimers

- The diagnoses presented in this lecture are not comprehensive
- Treatment options for all diagnoses presented may not be covered
- I am not offering to perform DRE’s on all of your patients
- I have no stock in anoscopes

Let’s start with a case!

Case #1

CC: Rectal bleeding

HPI: 44y/o F w/ complaint of **BRBPR x 2 days**. New patient of the practice. She also had abdominal pain and cramping. The **blood is not mixed into stool**. She no longer has bleeding. Wants to know if her symptoms are in relation to eating cheesy lasagna.

PMH: Hypothyroidism, Iron deficiency anemia, depression, obesity, NSVD x3, uterine prolapse

PSH: Bilateral tubal ligation, Hysterectomy

Meds: Recently started on iron and colace, levothyroxine, vitamin D, miralax prn

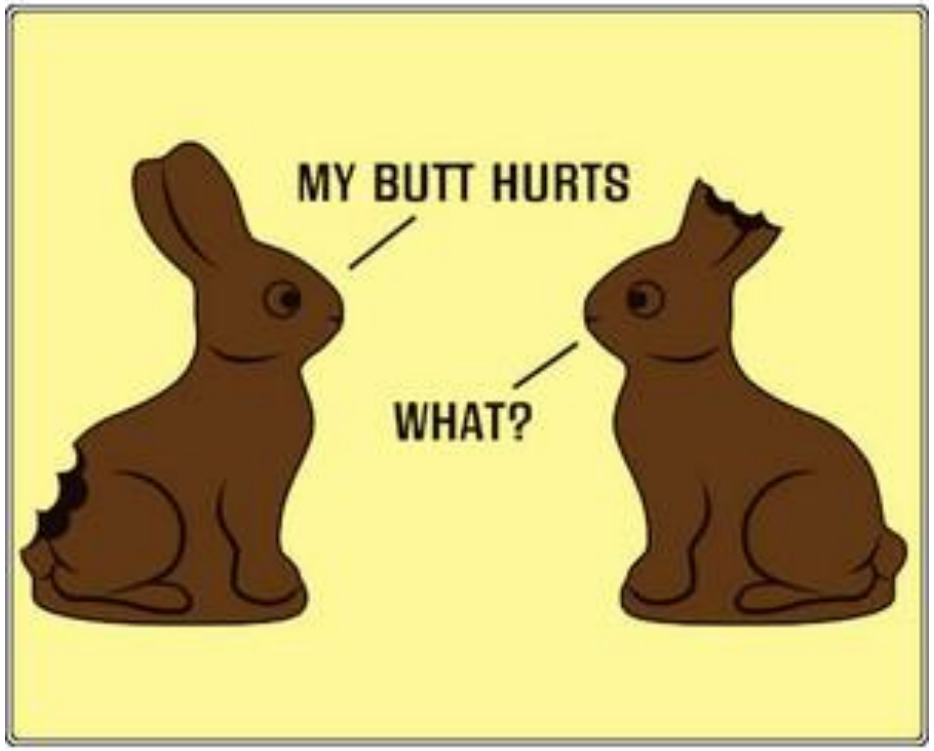
Case #1 (cont)

Family Hx: Colon Ca (mother and maternal aunt in age 60s, maternal grandfather in 70s)

Social Hx: Never smoker, no alcohol or illicit drug use, never married, employed

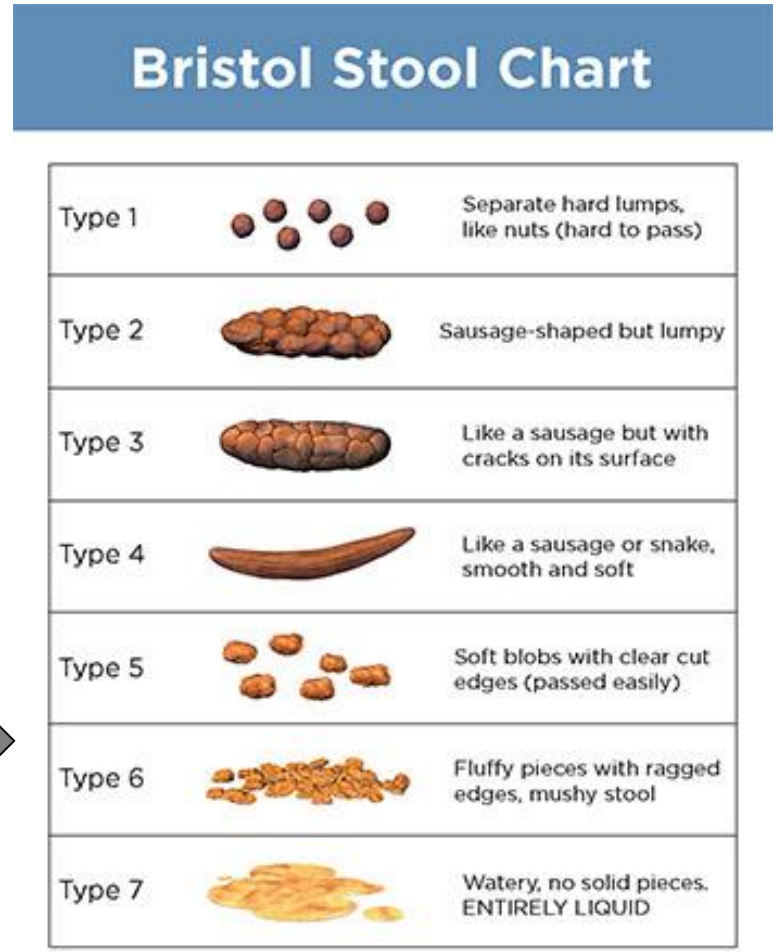
Next steps?

Step 1: Get a detailed history

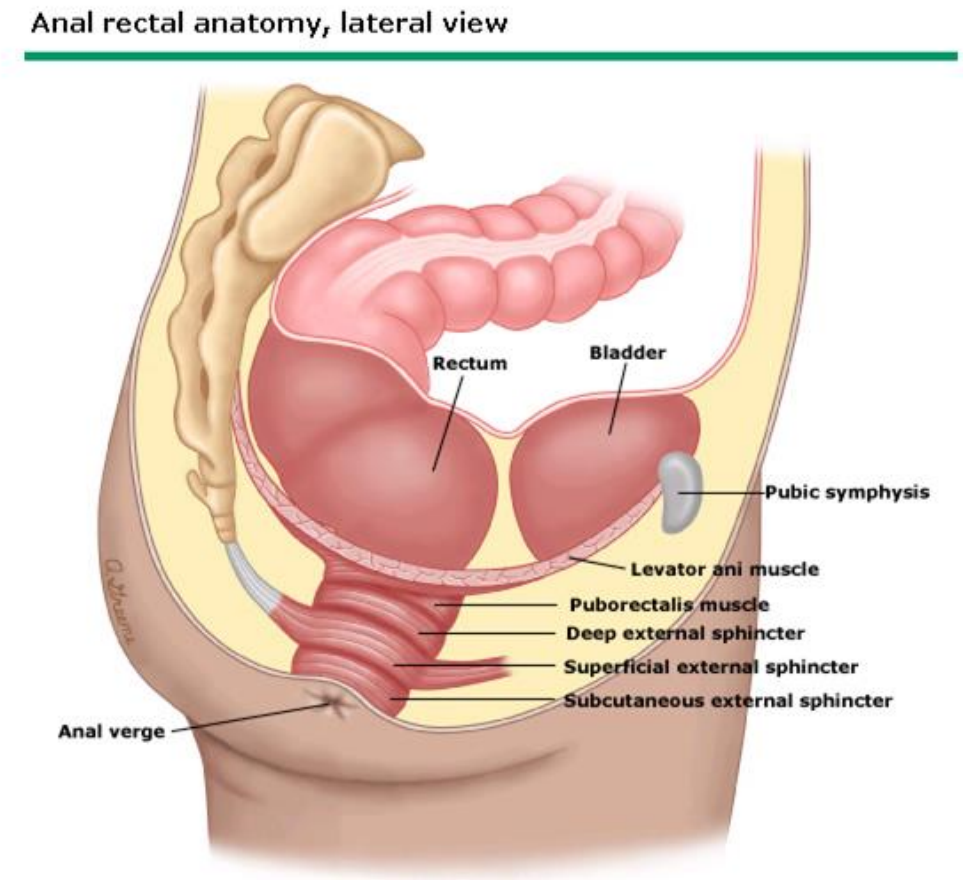


Step 1: Get a detailed history

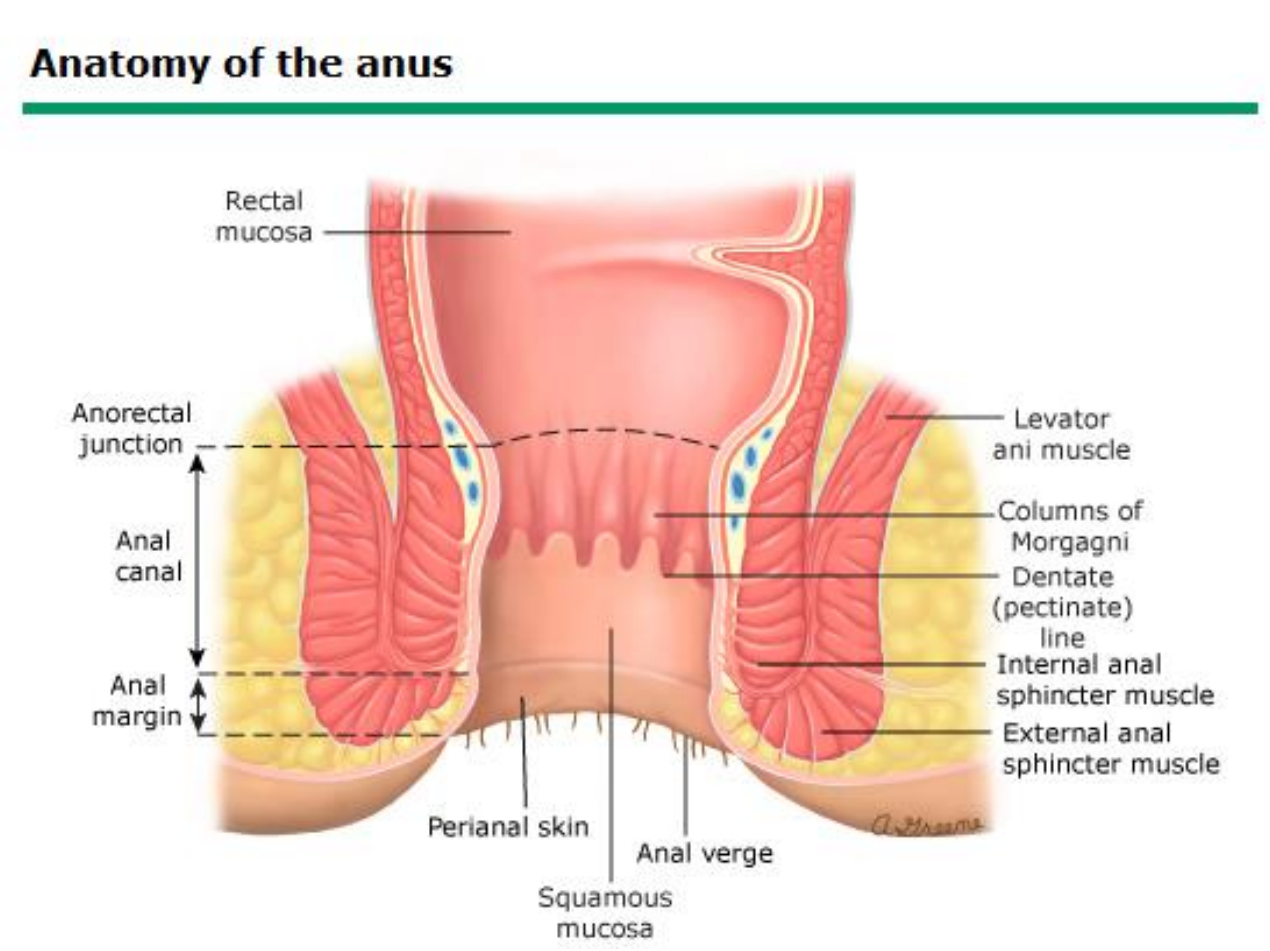
- **Bleeding:**
  - with or without bowel movements
  - on the stool or mixed in
  - large or small amount
  - blood in liquid or in clots
  - associated with passage of mucous or pus
  - duration of bleeding
- **Pain:**
  - tearing pain w/ BM vs constant, nagging pain vs irritation
- **Stool:**
  - change in stool caliber?
- **Duration?**
- **Trial of Therapy?**
- **Systemic Symptoms? Red Flags???**



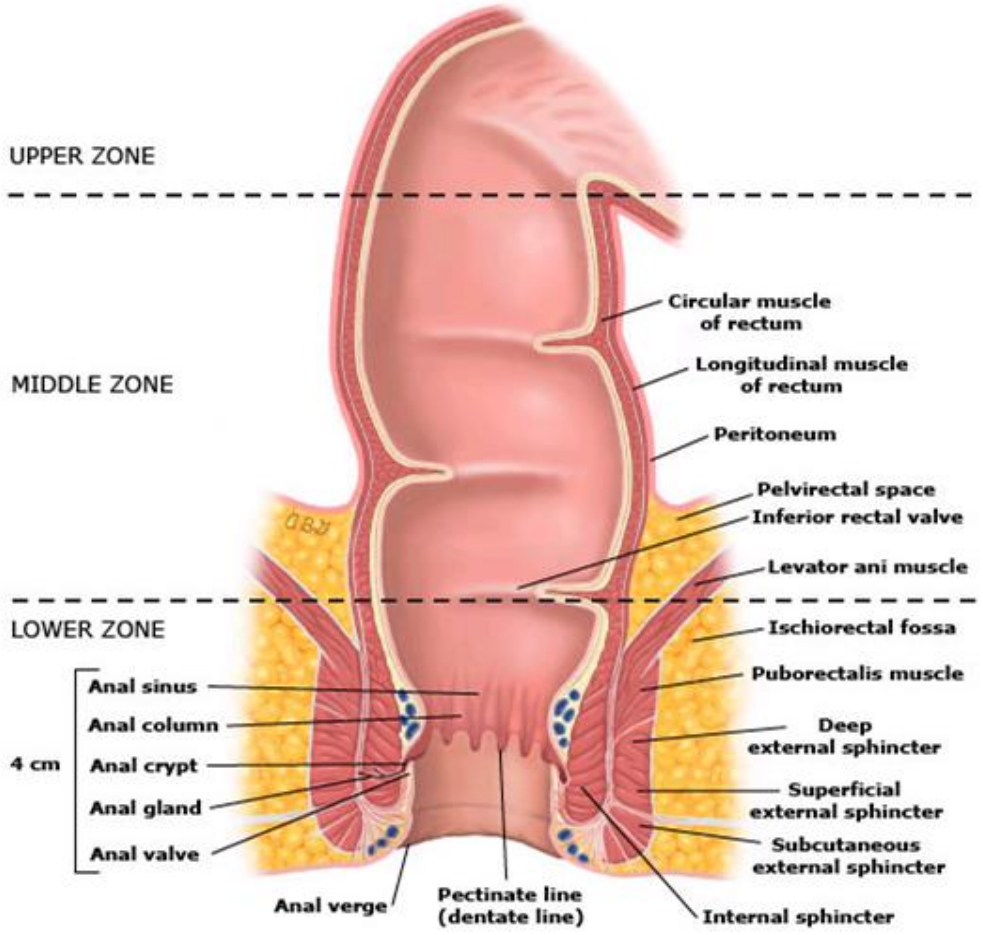
Anatomy of Anal Canal and Rectum



Anatomy (cont)



Anatomy (cont)



Step 2: Performing the Physical Exam

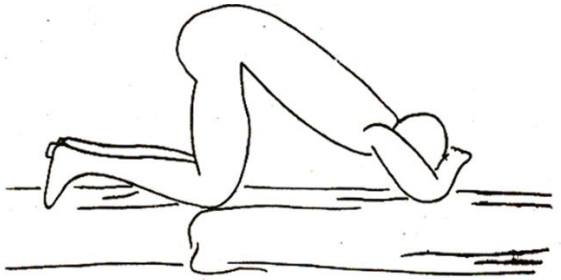


Figure 2. Knee chest position on a straight table.

- Have a chaperone/assistant
- Positioning
  - prone jack-knife (knee to chest) or standing is preferred vs left lateral decubitus (Sim's position) or lithotomy, but position as appropriate for pt comfort
- External Inspection
  - gently spread the buttocks
  - inspect for dermatologic conditions of the perianal region
  - have patient bear-down/strain
- Palpation/Digital Rectal Exam w/ gloved and lubricated finger
  - may require topical anesthetic
- Anoscopy

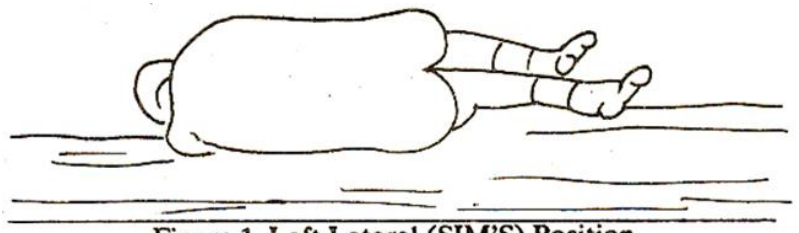
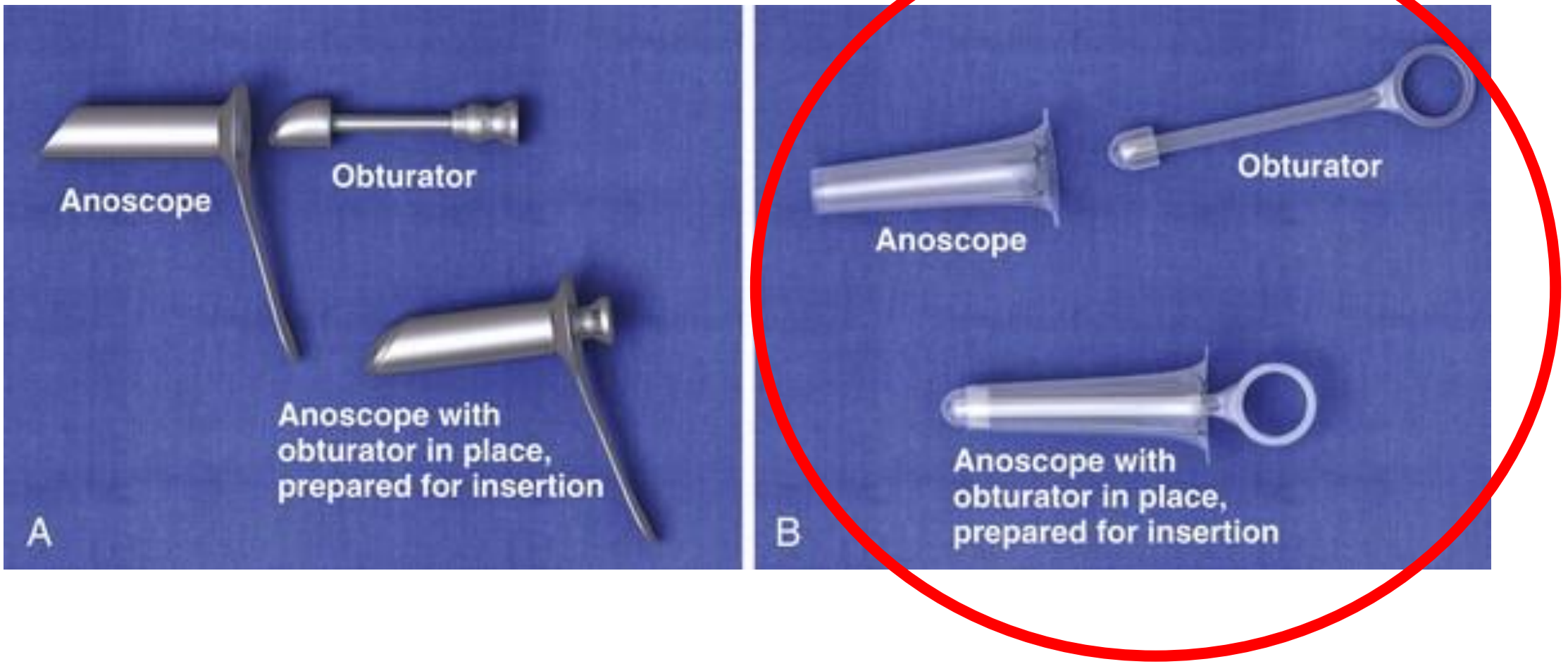


Figure 1. Left Lateral (SIM'S) Position.

Digital Rectal Exam

- Using a small amount of lubricant on the index finger, ask the patient to take a deep breath and insert the finger facing down (6 o'clock position)
- Appreciate the external sphincter tone then ask the patient to bear down and feel for tightening of the sphincter
- Palpate the rectal wall starting from the 6 o'clock position clockwise to the 12 o'clock position. Then return to the 6 o'clock position and palpate the other half of the rectal wall feeling for masses, nodules and tenderness
- Examine stool remaining on the glove for the presence of visible or occult blood

Anoscopy


Anoscope
Obturator
Anoscope with obturator in place, prepared for insertion
A
Anoscope
Obturator
Anoscope with obturator in place, prepared for insertion
B

https://www.nejm.org/doi/full/10.1056/NEJMvcm1510280

Benign Anorectal Conditions

TABLE 1

Differential Diagnosis and Key Points About Symptoms of Common Benign Anorectal Conditions

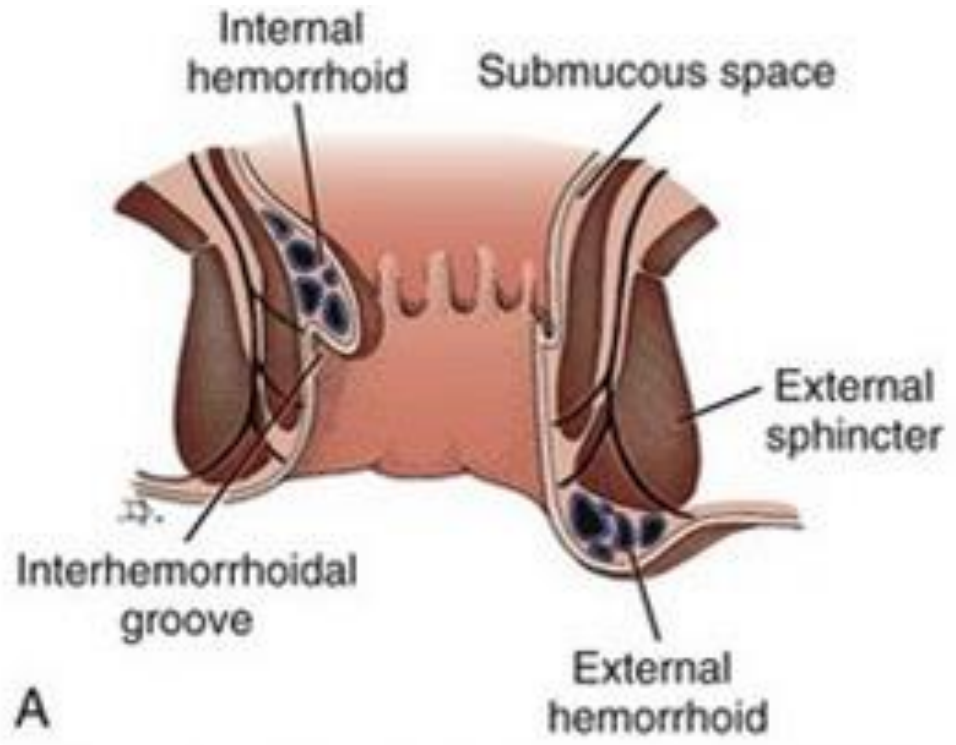
Symptom	Differential diagnosis	Key points
Anal bleeding	Anal fissures Anal polyps Hemorrhoids Upper or lower gastrointestinal tract bleeding	Hemorrhoids are the most common cause and often resolve with fiber supplementation; grade III and IV hemorrhoids are more likely to benefit from surgical therapies Evaluate for malignancy in patients 50 years and older who have not had screening per U.S. Preventive Services Task Force guidelines[2-4]
Incontinence	Fecal impaction Fistula Neurologic disease Rectal prolapse Sphincter defect	If etiology is unknown after history and examination, anal sphincter imaging may aid with the diagnosis; biofeedback is an effective treatment[5,6]
Mass	Abscess Anal polyps Condyloma Hemorrhoids Pilonidal cysts Rectal prolapse	Topical therapies are often effective for condyloma, but patients with large condylomata or those not initially responsive to treatment should be referred for surgical removal[7,8]
Pain	Abscess Anal fissures Fistula Proctalgia fugax Proctitis Rectal prolapse Thrombosed external hemorrhoids Unspecified functional rectal pain	Surgery is generally recommended for abscesses, fistulas, prolapse, and thrombosed hemorrhoids (within 72 hours of symptoms); anal fissures may benefit from conservative treatment in the first 12 months[2,3,9-12]
Pruritus	Dermatologic condition Excessive hygiene External hemorrhoids Infection Medication Pruritus ani	Topical hydrocortisone can be effective for pruritus ani; skin biopsy should be considered for patients without a clear etiology[13-15]

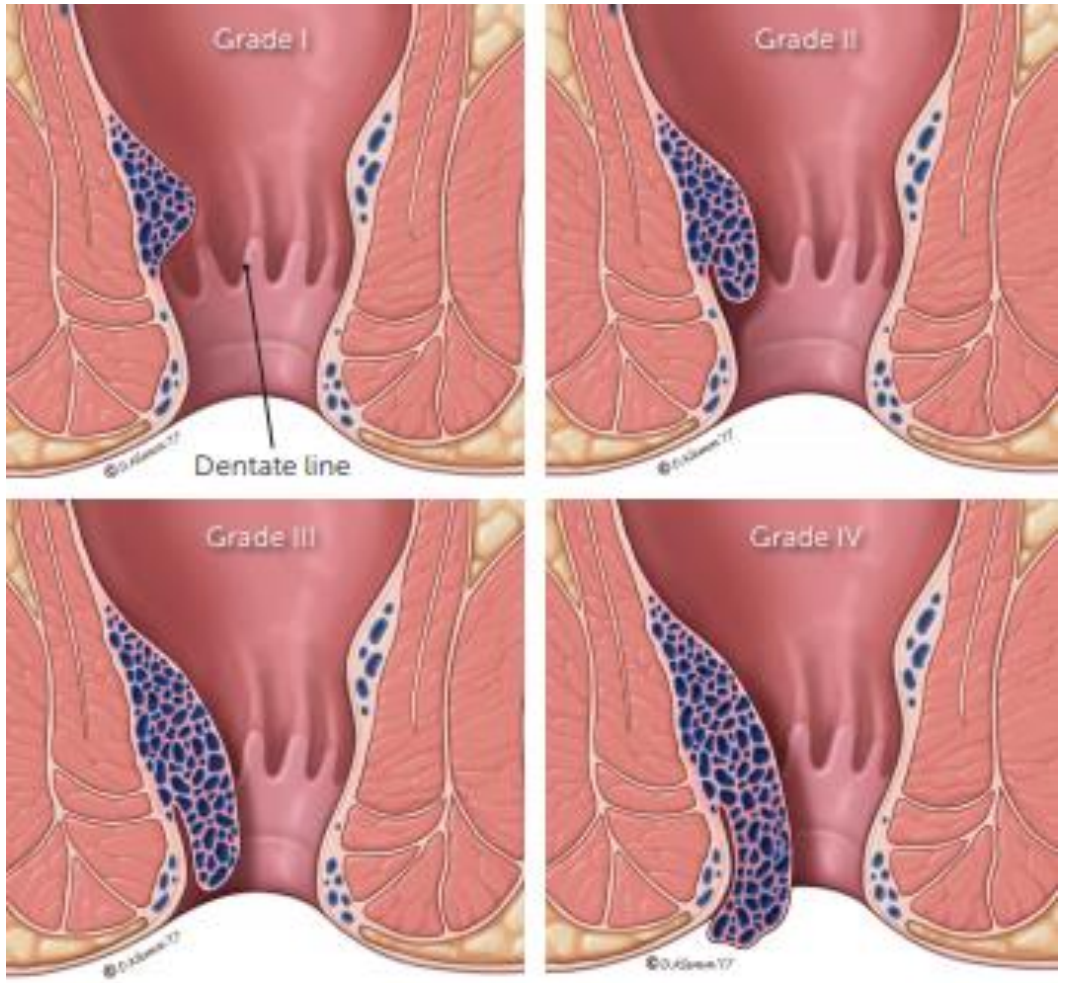
Note: Anorectal cancer can present with any of these symptoms.

Information from references 2-15.

https://www.aafp.org/afp/2020/0101/afp20200101p24.pdf

Internal and External Hemorrhoids

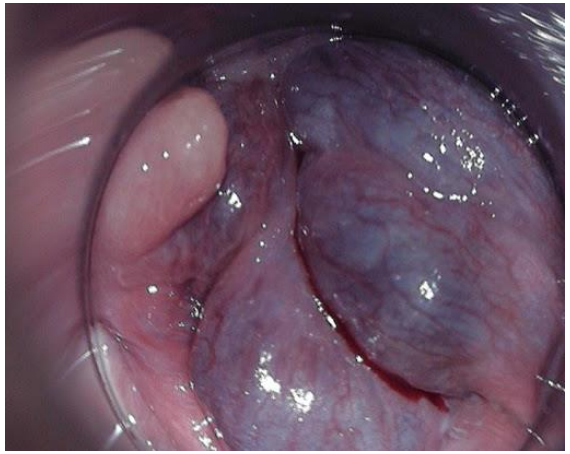


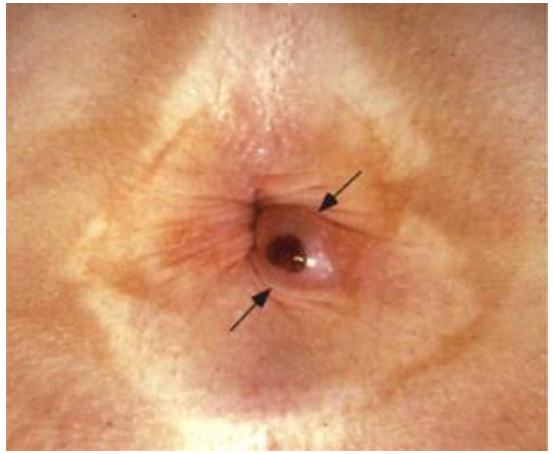


Grading of internal hemorrhoids. (Patients may experience painless bleeding with any grade.)

Grade I = asymptomatic outgrowth of anal mucosa caused by engorgement of underlying venous plexus and connective tissue; grade II = hemorrhoid prolapses but spontaneously reduces; grade III = hemorrhoid prolapses and must be manually reduced; often accompanied by pruritus and soilage; grade IV = hemorrhoid prolapse that cannot be reduced; often accompanied by chronic local inflammatory changes.

Internal and External Hemorrhoids





	Medical Treatment	Office-Based Procedures			Surgical Hemorrhoidectomy		
Internal Hemorrhoid Grade	Diet Modification	Rubber Band Ligation	Sclero-Therapy	Infrared Coagulation	Surgical Excision	Stapled Hemorrhoidopexy	Doppler Guided Ligation
I: No prolapse	X	X	X	X			
II: Prolapse, spontaneous reduction	X	X	X	X			X
III: Prolapse, manual reduction	X	X	X		X	X	X
IV: Chronically prolapsed					X	X	

"Management of Hemorrhoids: Mainstay of Treatment Remains Diet Modification and Office-Based Procedures" Russell et al.
http://www.guideline.gov/expert/expert-commentary.aspx?id=37828

Pruritus Ani

TABLE 1
Conditions Associated with Pruritus Ani

Systemic illness	**Mechanical factors** *(continued)*	**Dermatologic factors** *(continued)*
Diabetes mellitus	Anal fistula	Atopic dermatitis
Hyperbilirubinemia	Tight-fitting clothes	Lichen planus
Leukemia	Allergy to dyes in toilet paper	Lichen sclerosis
Aplastic anemia	Intolerance to fabric softener	Contact dermatitis
Thyroid disease	**Skin sensitivity from foods**	**Infections**
Mechanical factors	Tomatoes	Erythrasma (Corynebacterium)
Chronic diarrhea	Caffeinated beverages	Intertrigo (Candida)
Chronic constipation	Beer	Herpes simplex virus
Anal incontinence	Citrus products	Human papillomavirus
Soaps, deodorants, perfumes	Milk products	Pinworms (Enterobius)
Over-vigorous cleansing	**Dermatologic conditions**	Scabies
Hemorrhoids producing leakage	Psoriasis	Local bacterial abscess
Prolapsed hemorrhoids	Seborrheic dermatitis	Gonorrhea
Alcohol-based anal wipes	Intertrigo	Syphilis
Rectal prolapse	Neurodermatitis	**Medications**
Anal papilloma	Bowen's disease	Colchicine
Anal fissure	Various squamous disorders	Quinidine

Adapted with permission from Zuber TJ. Diseases of the rectum and anus. In: Taylor RB, ed. Family medicine: principles and practice. 5th ed. New York: Springer-Verlag, 1998:792.

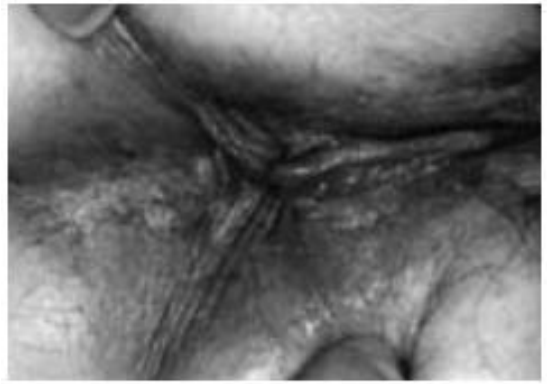
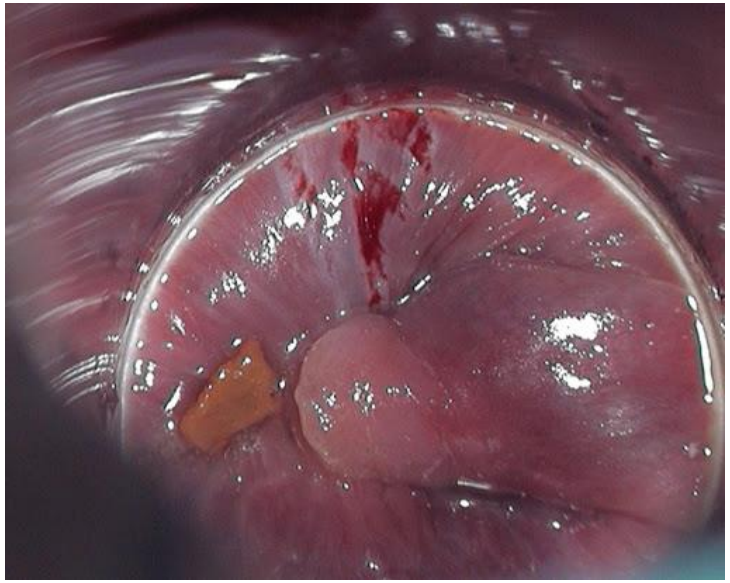


FIGURE 3. Perianal dermatitis caused by chronic pruritus ani.

Anal Fissures



Case #1 (cont)

Focused PEx:

Vitals wnl
Overweight female, NAD
Abdomen soft, nontender, nondistended, + BS

Perianal zone w/ mildly tender prolapsed anal tissue; no visible blood or fissures

Case #1 End

- Pt referred to colorectal surgery for grade III-IV hemorrhoidal disease
- Colorectal Surgery planned for hemorrhoidectomy

    - **EBM: "Practice Parameters for the Management of Hemorrhoids"**
        - ***Surgical hemorrhoidectomy reserved for patients who are:***
            - refractory to office procedures
            - unable to tolerate office procedures
            - have large external hemorrhoids
            - ***have combined internal and external hemorrhoids with significant prolapse***

"Practice Parameters for the Management of Hemorrhoids" Rivadeneira et al. Diseases of the Colon and Rectum, September 2011

Summary (so far…)

- Anorectal complaints are common in primary care clinics
- Broad differentials for anorectal complaints can be narrowed by careful history taking
- Complete Physical Exam may include digital rectal exam and anoscopy
- Anorectal complaints can be a sign of other medical conditions, so be aware of medical history, identified risk factors and exam findings


WHEN YOU FIND OUT
THAT HEMORRHOIDS
ARE A PAIN IN THE BUTT

Case #2

CC: Rectal Pressure

HPI: 52y/o M who presents to ED w/ complaint of **rectal pain and pressure w/ BMs** and **blood in his stool x several weeks**. He also had a 3 week history of f**evers, night sweats**.

PMH: HIV on HAART, vit D deficiency, hyperlipidemia, major depressive disorder

PSH: Negative

Meds: Ritonavir, Atazanavir, Emtricitabine/Tenofovir; 1 week ago, recently started on **doxycycline and s/p IM ceftriaxone for empiric therapy for GC/CT** per PCP concern for rectal infection

Case #2 (cont)

Fam HX: Noncontributory

Social Hx: Works full time at airport; denies alcohol, IV drug use or substance abuse.
Sexually active with men only.

PEx: Afebrile on admission, vital signs otherwise within normal limits
Abdomen exam benign
Rectal exam: DRE and anoscopy were deferred as pt had intense pain; **external exam was significant for tender external mass w/ a small amount of blood**
1+ B/L LE edema

Case #2 (cont)

- Work up:
  - CXR
  - DOPPLERS
  - CT PE
  - CT ABD/PEL w/ contrast
  - Colorectal Surgery Consulted

Anorectal Masses

- Rectal Polyps
- Rectal Prolapse
- Anal/Rectal Abscess
- Condyloma
- Malignancy

Polyps

- Hyperplastic polyps vs inflammatory pseudopolyps vs adenomatous polyps (neoplastic)
- Biopsy is required to distinguish diagnosis
- If adenomatous, full colonoscopy required to rule out proximal lesions

Mucosal Polyps

Common Anorectal Conditions: Part II. Lesions. Pfenninger. *American Family Physician* 2001

Rectal Prolapse

- Mucosal Prolapse vs Full-Thickness Rectal Prolapse (Procidentia)
- Often results in fecal incontinence
- Treatment is surgical
- Look for concomitant rectocele, cystocele or other pelvic organ prolapse

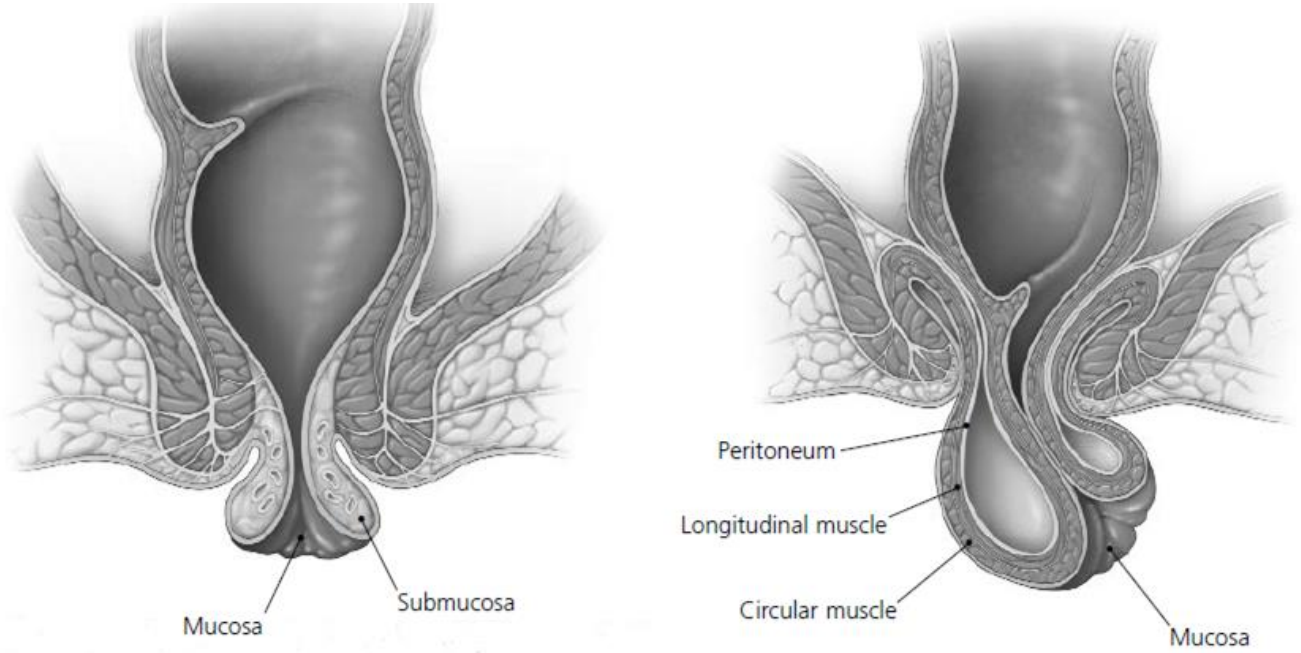
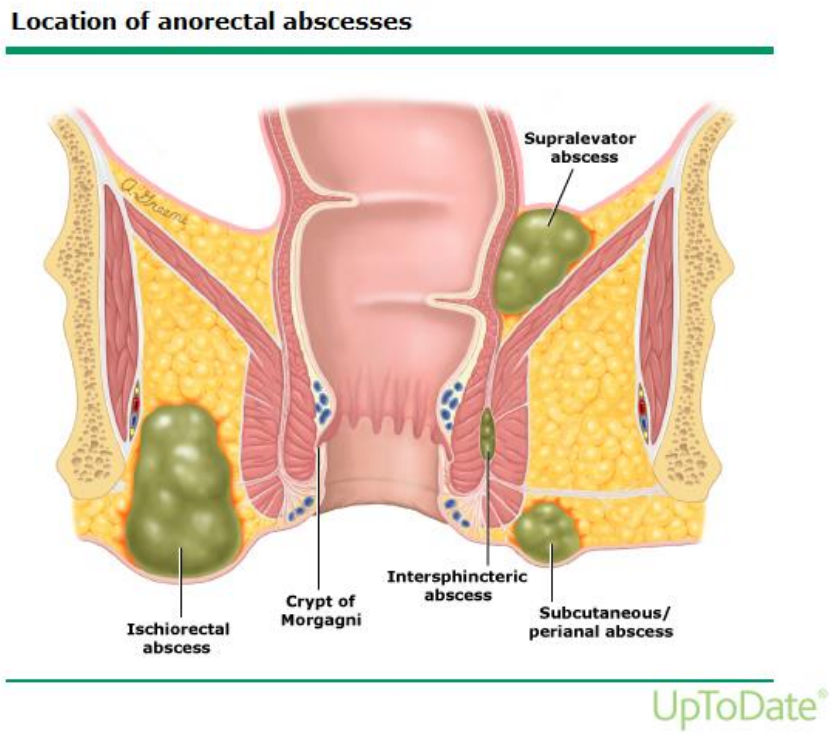


FIGURE 10. Anal mucosal prolapse *(left)* and full-thickness rectal prolapse *(right)*.

Anorectal Abscesses



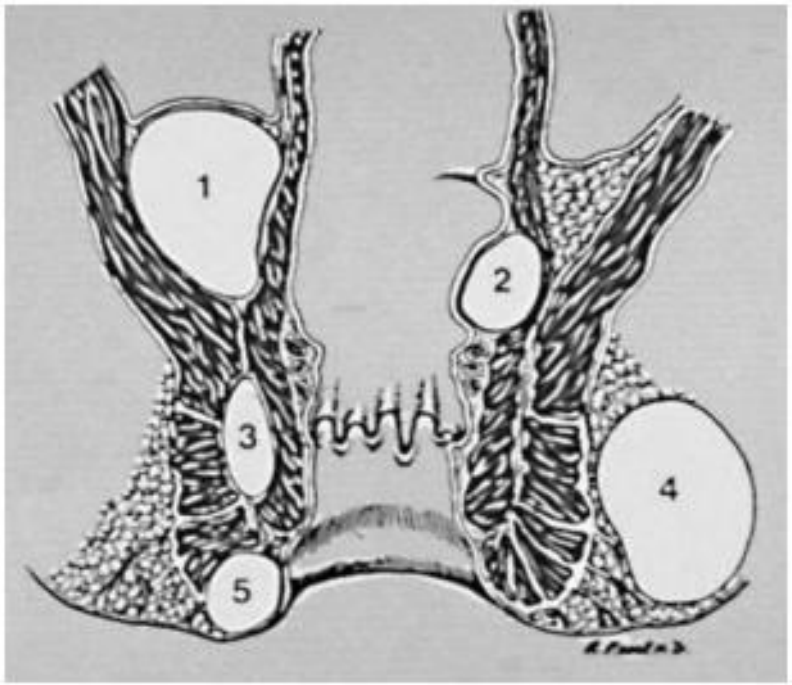
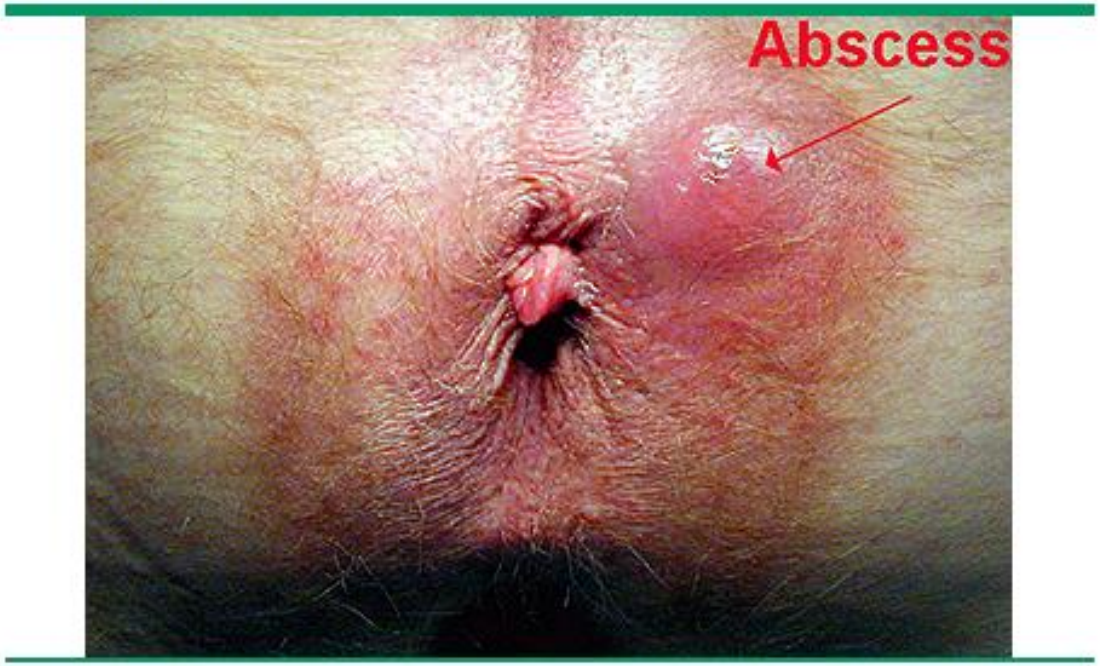


Figure 2 High abscesses. 1, supralevator; 2, submucosal/ intermuscular. Low abscesses. 3, intersphincteric; 4, ischiorectal; 5, perianal. (Illustration provided by Russell K. Pearl, M.D., Department of Surgery, University of Illinois at Chicago.)

Perianal Abscess

Perianal abscess



A perianal abscess is apparent as an erythematous, fluctuant bulge with surrounding edema.

Courtesy of David A Schwartz, MD and Maurits J Wiersema, MD.

Other inflammatory conditions:
Diverticular Disease, Colitis, Proctitis, etc…

- DDx includes:
  - Infectious (STI related [chlamydia, gonorrhea, syphilis], GI organisms…)
  - Chronic Inflammatory disorders (e.g. Inflammatory Bowel Disease)

Case #2 (cont)

Case #2 (cont)

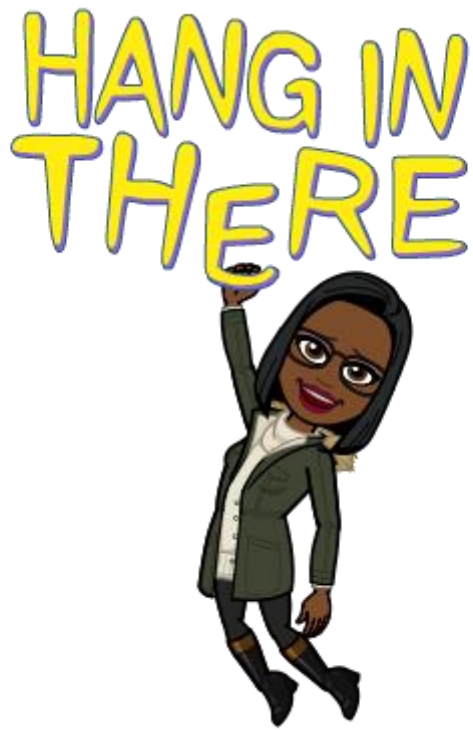
Amoebic Colitis

Case #2 End

- The radiologist called this diagnosis!
  - Recommended we get stool studies to assess for ameoba...and it was (+)
- Patient was discharged on Flagyl
- On follow up, pt symptoms resolved
- Colonoscopy completed 4 weeks later was a normal study

Summary from Case #2

- Use specific history and ROS to narrow differential diagnosis
- Must consider Medical History of the patient
    - Pay attention to high-risk patients and patients with significant co-morbidities that can predispose them to specific diagnoses
- In some scenarios, imaging is necessary to solidify a diagnosis


HANG IN
THERE

Case #3

CC: **Intermittent blood in stool**

HPI: 61y/o F presents with complaint of **intermittent bright red blood in stool or when she wipes** and **anal pain**. Dx of hemorrhoids w/ fissure, and initially tried to increase fiber and stool softeners, but still having **symptoms x2 months.** Denies symptoms of straining or constipation. **Nitroglycerin also didn't help for her anal pain**. ROS otherwise negative.

PMH: Arthritis, Attention Deficit Disorder without Hyperactivity, Anxiety, Depression

PSH: **Colonoscopy w/ polypectomy 2 years ago (patient reports that pathology was benign); hysterectomy**, finger surgery, bunion surgery

Case #3

Meds: None

Family Hx: Breast Ca (mother), Diabetes (paternal), CAD/heart disease

Social Hx: Denies tobacco, alcohol, drug use

PEx: Vitals wnl, nml BMI
Well appearing woman NAD
Abdominal exam benign
Rectal exam: **inspection of perianal zone w/ acute on chronic anal fissure**

Case #3

What do you do next:

A.) Rx for hydrocortisone rectal suppository
B.) Try to get records from prior colonoscopy
C.) Anoscopy in the office
D.) Send for colonoscopy
E.) Referral to colorectal surgery

Case #3

Case continued:

- pt referred to colorectal surgery given persistence of symptoms and no improvement on “appropriate therapy”

- seen by colorectal 3 weeks later, who did anoscopy under anesthesia. Exam significant for left anterior atypical ulcer, concerning for neoplasm. Biopsy with frozen section collected at that time.

Case #3

Case continued:

- pt referred to colorectal surgery given persistence of symptoms and no improvement on supposedly appropriate therapy
- seen by colorectal 3 weeks later, who did anoscopy under anesthesia. Exam significant for left anterior atypical ulcer, concerning for neoplasm. Biopsy with frozen section collected at that time.

- Frozen section concerning for cloacogenic carcinoma.

- Final pathology: *anal cancer tumor; glandular mucosa showing a focus of infiltrating poorly differentiated squamous cell carcinoma*

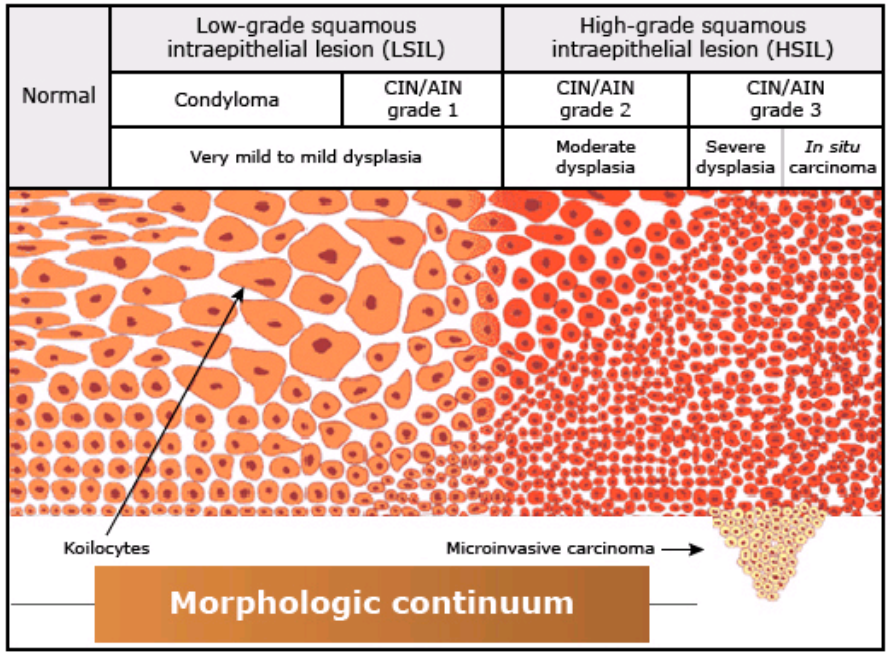
Anal Cancer

- Anal cancer is fairly uncommon, and accounts for about 1-2% of cancers affecting the intestinal tract
- Have a high index of suspicion in patients not responding to “appropriate therapy”
- Be particularly attentive in specific high-risk groups
- Anal cancer, like cervical cancer, is potentially preventable.
    - Screening and treating precursor lesions such as high-grade AIN may lead to a reduction in the incidence of anal cancer.

AIN

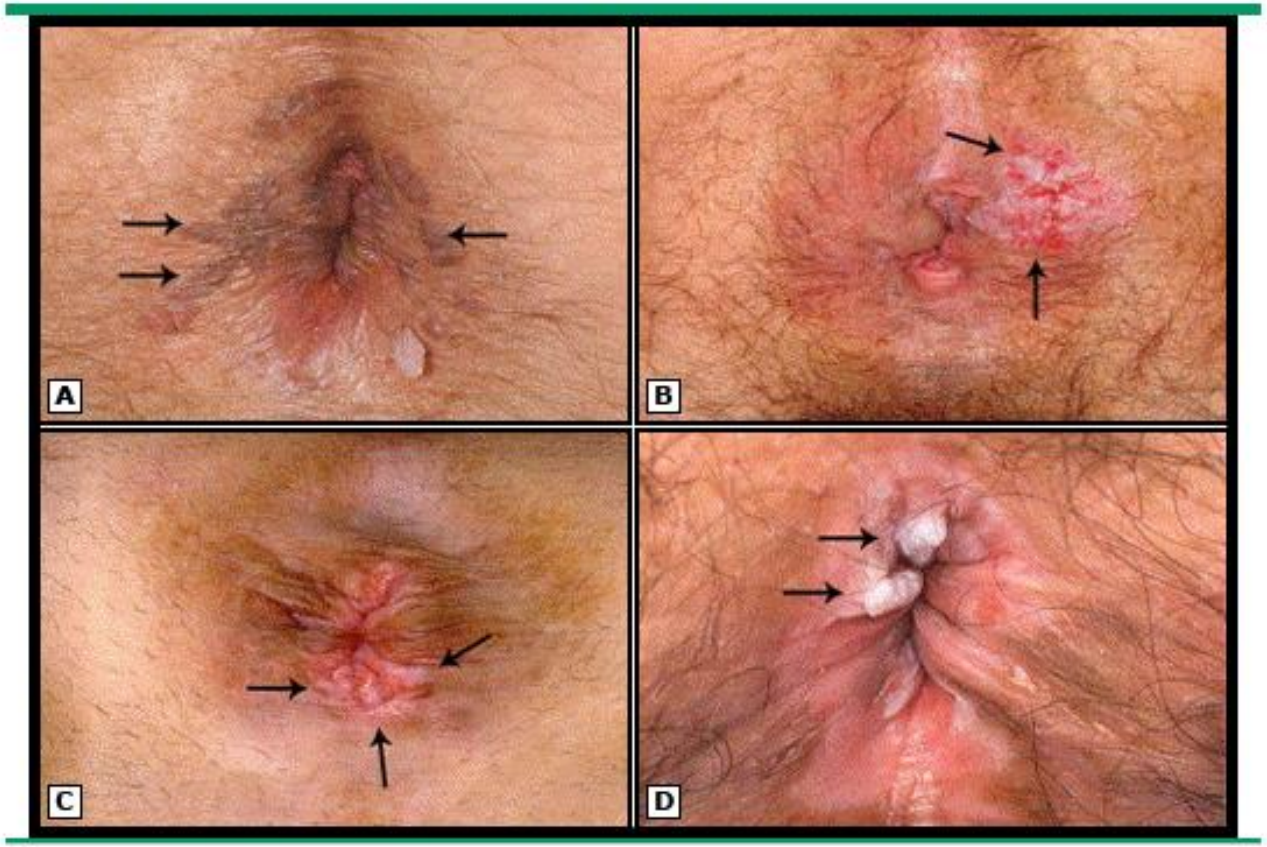
Squamous intraepithelial lesions

Spectrum of HPV disease



CIN: cervical intraepithelial neoplasia; AIN: anal intraepithelial neoplasia.
Adapted from: Bonnez W. Papilloma virus. In: Clinical Virology, Richman DD, Whitley RJ, Hayden FG (Eds), 3rd Edition, ASM Press, Washington DC 2009, page 623.

Anal squamous intraepithelia neoplasia



(A) Bowenoid anal intraepithelia neoplasia.
(B) Erythroplakic anal intraepithelial neoplasia.
(C) Leukoplakic anal intraepithelial neoplasia.
(D) Verrucous anal intraepithelial neoplasia.

Reproduced with permission from: Kreuter A, Brockmeyer NH, Hochdorfer B, et al. Clinical spectrum and virologic characteristics of anal intraepithelial neoplasia in HIV. J Am Acad Dermatol 2005; 52:603. Copyright © 2005 The American Academy of Dermatology.

High Risk Conditions

Populations at increased risk of anal cancer

HIV-positive men and women
Men who have sex with men
Iatrogenic immunosuppression (eg, solid organ transplant recipients, long term oral corticosteroids)
Women with a history of high-grade cervical, vulvar, vaginal dysplasia or cancer
Individuals with a history of anal warts

UpToDate®

Case #3

Follow up:

- pt referred given persistence of symptoms and now improvement on supposedly appropriate therapy
- pt seen by colorectal 3 weeks later, who did anoscopy under anesthesia. Exam significant for Left anterior atypical ulcer, concerning for neoplasm. Biopsy with frozen section collected.
- Frozen section concerning for cloacogenic carcinoma.
- Final pathology: anal cancer tumor; glandular mucosa showing a focus of infiltrating poorly differentiated squamous cell carcinoma
- **Staging: cT2N0M0, stage II**
- **Port placed for patient to receive chemo (5FU and mitocycin C) and started radiation**
- **4 months s/p therapy, imaging w/o evidence of previously seen anal mass; postradiation changes**
- **rectal pain and bleeding improved**

Case #3 Summary

- Research conducted during the last decades has shown that HPV related disease is more closely related to genital rather than to gastrointestinal malignancies

- As many cases of anal cancer occur in identifiable high-risk populations, targeting these populations for screening may be cost-effective
    - Such populations include MSM, HIV+, and Immunocompetent women w/ CIN, VIN or vaginal intraepithelial neoplasia
    - However, there are no current national guidelines formally supporting screening

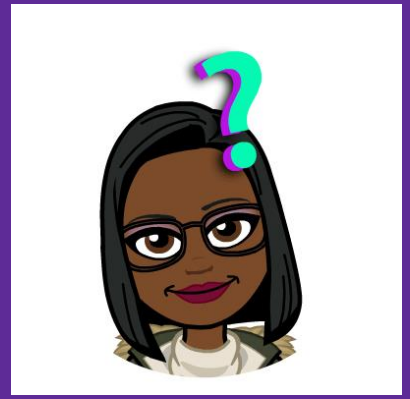
- HPV vaccines can significantly decrease the incidence of infection with the HPV types associated with cervical and anal neoplasia! Vaccinate!

Summary

- Anorectal complaints are common in the primary care setting
- The differential diagnosis can be broad, but effectively narrowed by performing a thorough history and physical exam
- Family Physicians can and should perform DRE and anoscopy
- Once cancer is ruled out, approximately 90% of anorectal complaints can be managed in the primary care physician's office
- Have a high index of suspicion in patients not responding to "appropriate therapy"
- It is important to recognize patient-specific risk factors that may place them at higher risk for malignant disease
- In certain populations, screening for anal cancer may be beneficial and there is a role for primary prevention through vaccination w/ HPV vaccine

“Evaluation and Management of Common Anorectal Conditions”

QUESTIONS?



References

- Abcarian, Herand. "Anorectal Infection: Abscess-Fistula." *Clinics in Colon and Rectal Surgery* 24.01 (2011): 014-21..
- Breen, Elizabeth, and Ronald Bleday. "Perianal Abscess: Clinical Manifestations, Diagnosis, Treatment." *Uptodate*.
- Breen, Elizabeth, and Ronald Bleday. "Anal fissure: Clinical manifestations, diagnosis, prevention." *Uptodate*.
- "Chapter 2. Evaluation Tools." McGraw-Hill Manual: Colorectal Surgery Ed. Andreas M. Kaiser. New York, NY: McGraw-Hill, 2009, http://accesssurgery.mhmedical.com/content.aspx?bookid=425&sectionid=39889015.
- **Cohee, Mark W, et al. "Benign Anorectal Conditions: Evaluation and Management." American Family Physician, vol. 101, no. 1, 1 Jan. 2020, pp. 24-33.**
- **Fargo, Matthew V, and Kelly M Latimer. "Evaluation and Management of Common Anorectal Conditions." American Family Physician, vol. 85, no. 6, 15 Mar. 2012, pp. 624–630.**
- Ferguson, Martha A. "Office Evaluation of Rectal Bleeding." *Clinics in Colon and Rectal Surgery* 18.04 (2005): 249-54.
- High Resolution Anoscopy Atlas http://www.anoscopyhighresolution.com
- Howard, Kirsten. "The Cost-effectiveness of Screening for Anal Cancer in Men Who Have Sex with Men: A Systematic Review." *Sexual Health* 9.6 (2012): 610.
- Palefsky, Joel M., and Ross D. Cranston. "Anal Squamous Intraepithelial Lesions: Diagnosis, Screening, Prevention, and Treatment." *Uptodate*.
- **Pfenninger, et al. "Common Anorectal Conditions: Part I. Symptoms and Complaints" American Family Physician, vol. 65, no. 12, 15 June 2001, pp. 2391-2398**
- **Pfenninger, et al. "Common Anorectal Conditions: Part II. Lesions. " American Family Physician, vol. 64, no. 1, 1 July 2001, pp. 77-88**
- **Rajab, T. K., et al. (2018). "Digital Rectal Examination and Anoscopy." New England Journal of Medicine 378(22): e30.**
- "Rectal Exam." Rectal Exam | Stanford Medicine 25 | Stanford Medicine, http://stanfordmedicine25.stanford.edu/the25/rectal.html.
- Rivadeneira, David E., Scott R. Steele, Charles Ternent, Sridhar Chalasani, W. Donald Buie, and Janice L. Rafferty. "Practice Parameters for the Management of Hemorrhoids (Revised 2010)." *Diseases of the Colon & Rectum* 54.9 (2011): 1059-064. Web.
- Russell, Marcia M., and Clifford Y. Ko. "Expert Commentaries: Management of Hemorrhoids: Mainstay of Treatment Remains Diet Modification and Office-Based Procedures." *National Guideline Clearinghouse*. <http://www.guideline.gov/expert/expert-commentary.aspx?id=37828>
- Tatti, Silvio, Veronica Suzuki, Laura Fleider, Veronica Maldonado, Ricardo Caruso, and Maria De Los Angeles Tinnirello. "Anal Intraepithelial Lesions in Women With Human Papillomavirus–Related Disease."*Journal of Lower Genital Tract Disease* 16.4 (2012): 454-59.
- Wilcox, C Mel, MD. "Evaluation of the HIV-infected Patient with Anorectal Symptoms." *Uptodate*.